Amendments to the Specification:

Please replace the paragraph beginning at page 5, line 15 with the following amended paragraph:

FIG. 5 shows a typical electrical signal spectral amplitude for a possible intrusion event 30. In this case, the spectral amplitude registered by both bandpass filters is above the trigger level 25. FIG. 6 combines the plots of spectral amplitudes from FIGS. 3-5 to illustrate the differences between the false alarm event frequency spectra 28 and 19 and a possible intrusion event frequency spectrum 30.

Please replace the paragraph beginning at page 6, line 19 with the following amended paragraph:

FIG. 10 is a block diagram of an implementation of poolside unit 20. Sound pressure waves in the liquid of the pool are converted to electrical signals by a hydrophone 124. The hydrophone is constructed using a ceramic piezoelectric material such as lead zirconate titanate (PVT) (PZT) or a piezoelectric polymer film such as polyvinylidene fluoride (PVDF). An electrical signal from the hydrophone is amplified by preamp 125. The preamp 125 is implemented using integrated circuit (IC) operational amplifier technology. The preamp 125 provides a voltage gain of between 200 and 2000 as appropriate for the choice of hydrophone 124. Two single pole RC filters are used to bandwidth limit the signal. A high pass filter, with a pole at 20 Hz is formed using a resistor 126 and the capacitance of the hydrophone 124. A low pass filter 127, with a pole at 10 kHz, is formed using a capacitor and the preamp 125 feedback resistor. The electrical signal is processed next by a programmable gain amplifier 128. This amplifier provides an adjustable gain of from 1 to 50 controlled by a microprocessor 131. By this mechanism, the overall sensitivity of the poolside unit 20 can be adjusted by software in the microprocessor 131 in response to changing conditions in the ambient noise level present in the pool.

Please replace the paragraph beginning at page 8, line 7 with the following amended paragraph:

The poolside unit 20 is powered by the battery 139. Operating voltage for the various integrated circuits is generated by switched mode power supply 140. A block diagram of alternative implementation of the poolside unit 20 is shown in FIG. 11. In this implementation, the output of a preamp 141 is presented directly to an ADC 142. Processor instructions are used to implement various software modules for the poolside unit 20. A low pass filter module 143 and a high pass filter module 144 are implemented as infinite impulse response (IIR) filters operating on the digital values output by the ADC 142. The processor calculates the RMS signal magnitude for the low pass module 143 in magnitude module 145, and for the high pass module 144 in a magnitude module 146. A dual threshold module 4̶7̶ 147 performs characteristic signature testing based on level parameters and an envelope detector 148 performs time envelope testing based on time parameters, as described above.

Please replace the title with the following amended title:

SYSTEM AND METHOD FOR P̶O̶O̶L̶ MONITORING INTRUSION DETECTION IN A POOL